

# **Selling Green Power in California: Product, Industry, and Market Trends**

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## Acronyms and Abbreviations

APX	Automated Power Exchange
BPA	Bonneville Power Administration
CEC	California Energy Commission
CPUC	California Public Utilities Commission
CRS	Center for Resource Solutions
CTC	Competition Transition Charge
DASR	Direct Access Service Request
EES	Enron Energy Services
ERT	Environmental Resources Trust
GMER	Green Mountain Energy Resources
PG&EES	PG&E Energy Services
PUC	Public Utilities Commission
PURPA	Public Utilities Regulatory Policies Act
PX	Power Exchange
QF	Qualifying Facility
SMUD	Sacramento Municipal Utility District
UDC	Utility Distribution Company



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## Abstract

As one of the first U.S. states to open its doors to retail electric competition, California offers an important opportunity to assess the effectiveness of green power marketing as a mechanism for supporting renewable energy. This report is an interim assessment of key green power product, industry, and market trends in California. The report identifies and analyzes: the potential size of the green power market in California; the companies participating in the green power market; the green power products being offered and their prices; the impact of the green market on renewable generators and the environment; and the influence of several public policies and non-governmental programs on the market for green power. Data used in this paper have been collected, in large part, from surveys and interviews with green power marketers that took place between December 1997 and April 1998.

There remain legitimate concerns over the viability of green power marketing to support significant quantities of renewable energy and provide large environmental gains, and it is far too early to assess the overall strength of customer demand for renewable energy. Nonetheless, initial evidence provided in this report suggests that: (1) the size of the green power market in the near-term will be limited, but its ultimate size is uncertain; (2) residential customers are the primary market for green power; (3) marketers that target the residential customer class are very interested in pursuing green power marketing, and customers have a large number of green products to select from; (4) the use of existing renewable resources has been the primary basis for green differentiation, but at least some of the products include meaningful commitments to new renewable energy generation; and (5) the price premium for green power is moderate, ranging from 0.7 cents/kWh to over 3 cents/kWh. For other states embarking on electricity restructuring and for renewable energy advocates, we believe that the early results presented in this paper are encouraging. It is important to recognize, however, that California has a market environment and set of public policies and market rules that, while not perfect, are more conducive to green power marketing than many other states. In fact, a critical finding of this report is that, because of the high cost of acquiring and servicing residential customers and the low utility default service price, green power marketing affords new energy service providers one of the only viable entrees to California's residential marketplace.



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## 1. Introduction

Major changes are sweeping through the U.S. electric industry. As a result of electric industry restructuring, retail customers can, for the first time, select their electric service provider. While retail competition is expected to exert pressures to reduce costs, new products and value-added services will also proliferate. Growing evidence, for example, suggests that some customers will be willing to pay a premium for environmentally preferable, or green, electricity products. The development of this customer-driven market via green power marketing has been heralded by some as offering significant new opportunities for renewable electricity generation (Nakarado 1996). After all, just two percent of current U.S. electricity supply comes from non-hydroelectric renewable resources, and even a moderate level of customer demand could greatly increase this supply.

There are a number of examples of products that are sold, in part, based on their environmental attributes. These products include recycled paper, sustainably harvested timber, organic foods, and recyclable or biodegradable packaging. Moreover, within the marketing literature, there is a growing consensus that the green market is significant and that companies can profit by improving environmental performance and developing green products (Monty 1991; Greeno and Robinson 1992; Ottman 1993; Polonsky and Mintu- Wimsatt 1995; Wasik 1996; Vandermerwe and Oliff 1990; Simon 1992; Hart 1997; Fri 1992; Cairncross 1992; Porter and van der Linde 1995). Not all green products are successful, however, and recent surveys indicate that support for green products may be waning, in part because there is significant concern about the veracity of green claims (Roper Starch Worldwide 1996). It is also now recognized that there are many challenges to selling a green product that do not arise in traditional product marketing (Rothschild 1979; Bloom and Novelli 1981; Wiener and Doescher 1991; Wiser and Pickle 1997).

There has been considerable debate over the likely success of green power marketing as a tool for supporting renewables (Nakarado 1996; Rader and Norgaard 1996; Miller and Serchuk 1996; Wiser *et al.* 1997; Energy Center of Wisconsin 1997; Rader and Short 1998; Serchuk and Hirsh 1998). Thus far, however, there has been little experience with green power marketing on which to base robust conclusions. Approximately 20 utility green pricing programs currently target environmentally concerned consumers in a regulated context, and recent experience in the Massachusetts and New Hampshire retail competition pilot programs confirms that power marketers will offer green power products in a competitive context (Moskovitz 1993; Baugh *et al.* 1995; Osborn 1997; Weijo and Boleyn 1996; Holt and Fang 1997; Rothstein and Fang 1997; Titus and Fox 1997). Yet these programs and pilots have had mixed results (Holt 1996; Wiser and Pickle 1997), and given limits to marketer competition, customer eligibility, and program duration, neither are particularly representative of the types of green power marketing that are likely to be seen under full retail competition (Sebold and Hicks 1997; Energy Center of Wisconsin 1997).

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California is one of the first states in the U.S. to fully open its doors to retail competition, and it therefore provides an important opportunity to evaluate the development of green power markets in competitive conditions. This study is an interim report on key green power product, industry, and market trends. Though it is too early to determine long-term customer response to the green product offers, this paper identifies and analyzes: (1) the potential size of the green power market in California; (2) the companies participating in the green power market; (3) the green power products being offered and their prices; (4) the marketing strategies being utilized; (5) the impact of the green market on renewable generators and the environment; and (6) the influence of several public policies and nongovernmental programs on the market for green power. The paper concludes by highlighting initial lessons from the California experience and by outlining future prospects for green power marketing. Overall, it is hoped that this work will contribute to current debates on the effectiveness of green power marketing as a tool for supporting renewable energy, and will help characterize the determinants of that effectiveness.

There is clearly no single definition of “green” power. For the purposes of this paper, however, green power is defined as electricity that is differentiated based on its environmental attributes. This definition ignores the sticky question of whether specific types of power products really supply net environmental benefits. As a practical matter, there appears to be a general consensus that many forms of renewable energy should be considered “green,” and in California all green power products have included substantial quantities of renewable electricity (as defined by California state law) and/or large hydropower. Under California law, renewable resources include wind, solar, biomass (including landfill gas, digester gas, and municipal solid waste), geothermal, and small hydro (less than or equal to 30 MW). Large hydro is not considered an eligible renewable resource. The same definition is used to describe renewable resources in this paper.

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## 2. Methods

Data used in this paper have been collected from four primary sources: (1) semi-structured telephone interviews with all of the known green power marketers in California; (2) a mail survey of U.S. green power marketers; (3) informal conversations with green power marketers and other stakeholders (renewable generators, policymakers, environmental advocates, etc.); and (4) a review of green power marketing material (print ads, television and radio spots, and direct mail).

A significant amount of useful data on green power marketing is sensitive in nature and some of this information has therefore been obtained under the condition that individual marketers not be identified. This condition specifically applies to the results from the mail survey. The survey was sent to all known green power marketers in the United States (census of 15) in December 1997. Twelve marketers returned the questionnaire in early 1998 for a response rate of 80 percent. Of the surveys sent to the ten green power marketers that are or plan to be active in California in the near term, eight were returned for a response rate of 80 percent. Not all of the marketers responded to every question, however, so response rates on individual questions vary. Excluded from the survey population were: (1) electric utilities operating green pricing programs in a regulated context; (2) marketers that had not made public their plans to sell green power products as of early 1998; (3) marketers that have or plan to use environmental marketing based on factors other than the fuel content of their electricity products; and (4) aggregators that have or plan to purchase green power products for their members.



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### 3. What Is the Size of the Market?

After a three-month delay, California's \$20 billion power market opened on March 31, 1998, and all customers located within the service territories of the three large, in-state investor-owned utilities were given the opportunity to select a new electricity supplier. Though there are several ways for California customers to support green power when purchasing electricity, this paper focuses entirely on the purchase of green power from competitive suppliers, or green power marketing.<sup>1</sup>

#### 3.1 *Anecdotal Evidence of Market Size*

Given the emerging nature of the market, the future size and growth of California's green power market is, as of yet, unknown. Survey results generally indicate that as many as 40 to 70 percent of residential customers are willing to pay a 5 to 15 percent premium for green power products (Baugh *et al.* 1994; Freeman 1996; Farhar and Houston 1996; Nakarado 1996; Farhar 1994). Yet it is also recognized by social scientists that, for a variety of reasons, surveys of consumer attitudes and intended behavior typically overstate actual product demand, especially where environmentally preferable products are involved (Rose *et al.* 1997; Kempton 1993; Richie and McDougall 1985; Smith and Haugtvedt 1995).

Anecdotal evidence, as well as experience with the diffusion of other products, suggests that green power demand in the early years of restructuring will be limited, primarily because customer switching will be slow. Early results in California, for example, demonstrate only modest interest, at least by smaller customers, in switching electric providers. Though it is still extremely early, between November 1, 1997 and April 1, 1998, 34,388 residential customers, or 0.4 percent of those 8.6 million residential customers eligible for direct access, were confirmed for a switch to an energy service provider via a direct access service request (DASR). There are no public data on the fraction of these customers who switched to green power options, but because most of the mass-marketed residential electricity products are green power products, one can expect that a significant fraction of the residential DASRs have been for these green products (i.e., perhaps 30-70%, or 10,000-25,000 residential customers). Because the market has just opened and advertising has begun only recently, the rate of green power penetration is expected to increase and extrapolation of these early trends is extremely dangerous. Nonetheless, at this rate of customer sign-ups, the expected level of residential customer demand for green power is 25,000 to 60,000 customers after the first year, or 0.3 to 0.7 percent of the residential customers eligible for direct access. Moreover, at this rate of switching, it would take seven to seventeen years before five percent of the residential customers in California were purchasing green power.

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<sup>1</sup> Other ways to support green power include: (1) if the customer is located in Sacramento, they can purchase green power via SMUD's regulated green pricing program; or (2) making contributions to renewable energy through customer utility bills, the proceeds of which will be forwarded to the California Energy Commission for use in its renewable-subsidy program (see Section 8).

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Additional insight into projections of future demand for green power comes directly from the green power marketers. Based on recent news reports, one of the major green power marketers, Green Mountain Energy Resources (GMER), hopes for 30,000 residential customers during the first year of competition. Foresight Energy Company, one of the major wholesalers for green power, claims to have secured three customers with a total demand of approximately 20 MW (equivalent to 25,000 residential customers). If other retail green power suppliers have similar expectations and if these expectations are met, it appears as if green demand in the first year could amount to as much as 200,000 residential customers. Another source of supporting anecdotal evidence on market demand comes from proceedings before the California Energy Commission (CEC), where the marketers jointly agreed that, based on early DADR numbers, residential customer demand could be as low as 50,000 (0.6% of eligible customers) during the first 12 months, barely enough to ensure the survival of one or two major green power suppliers. Nonetheless, in these same proceedings, the marketers suggested that residential demand of well over 175,000 customers (2% of eligible customers) was also quite possible (Renewable Marketers 1998).

The bulk of this anecdotal evidence suggests a level of residential green power market-penetration of approximately 0.5 to 2 percent in the first year. While these are not high percentages overall, as discussed later, because most of the residential product offerings include green power, it is expected that green power customers will represent a significant fraction of all residential customers who switch suppliers in the early years of restructuring (i.e., perhaps well over 50%).

It is also important to recognize that it will take some time for the green power market to develop and that market demand is not static. All products go through a life cycle, and the product diffusion process is not immediate, but rather typically starts slowly, then accelerates exponentially before tapering off (Rogers 1962). In the telecommunications industry, for example, it took many years before significant numbers of customers switched long-distance carriers (AT&T still commands 60% of the long-distance market, over a decade after competition was introduced). As customers learn about their opportunities to switch electric suppliers, the green power market can be expected to grow. Moreover, demand is dynamic and will depend critically on the level of advertising, the aggressiveness of the marketers, and on how the market itself unfolds and “catches on” (Serchuk and Hirsh 1998). Relying on customer switching results during the first years of retail competition may not, therefore, provide significant insight into the ultimate potential for green power demand. As the market matures over time, customer switching in general, and green power market-penetration more specifically, will increase. Based on informal conversations with the green power marketers, they expect residential market penetration of green power products by 2003 to be somewhere on the order of four to ten percent.

### 3.2 *Marketer Survey*

The marketer survey was used to obtain additional insight into the expectations of green power marketers on future market trends. Though the possibility for strategic responses must be recognized and we received only three to six responses to the questions relating to market demand, Table 1 presents the results of the survey regarding expected market growth.

**Table 1. Expected Market Trends**

<b>Percent of Customers Expected to Select a New Electricity Supplier</b>		
Customer Class	1 year after competition is introduced [mean (range)]	5 years after competition is introduced [mean (range)]
Residential	13% (2-20%)	48% (20-75%)
Commercial	28% (5-50%)	63% (40-80%)
Industrial	47% (20-80%)	77% (50-95%)
Governmental	17% (10-40%)	55% (30-95%)
<b>Percent of Customers Selecting a New Electricity Supplier That Are Expected to Select a Product That Contains at Least 20% Non-hydro Renewables</b>		
Customer Class	1 year after competition is introduced [mean (range)]	5 years after competition is introduced [mean (range)]
Residential	19% (10-25%)	22% (15-25%)
Commercial	8% (2-15%)	10% (10-11%)
Industrial	2% (0-5%)	3% (2-5%)
Governmental	6% (1-20%)	11% (5-20%)

Because of the extremely limited response rate and the possibility for strategic response to bias the results upwards (i.e., marketers may have an incentive to overstate market demand), one should not read too much into these numbers. Indeed, the large spread in the market demand estimates probably reflects both great uncertainty in the market as well as different incentives for strategic response. Nonetheless, these results do suggest the following:

- Green power marketers expect that a relatively large fraction of commercial and industrial customers will switch suppliers during the first years of retail competition, but that residential customer switching will be slow at first.
- Of those customers who switch, a significant fraction of residential customers are expected to select electricity products that contain substantial quantities of non-hydro renewable resources (10-25%). Demand for these renewable-based products by other customer classes is expected to be much lower.

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- By multiplying the two percentages together, one can estimate the expected level of demand for green power products that contain more than 20 percent non-hydro renewable electricity by customer class and year. For the residential customer class, the results of this calculation (2% residential market demand for green power after the first year and rising to 10% by year five) are relatively consistent with some of the anecdotal evidence provided earlier (i.e., 0.5 to 2% residential demand in the first year rising to 4 to 10% by the fifth year, or 2003).

Because of the wide range of estimates, Table 1 should not be used to quantitatively compare the overall level of customer demand among different customer classes. To more defensibly estimate relative demand, the retail green power marketers were also asked directly what percent of their revenue is expected to come from each customer class. For those U.S. marketers who clearly emphasize retail transactions and that answered the question (n = 4), on average, 75 percent of the revenue from green power sales is expected to come from residential customers (range of 50-90%), 14 percent from commercial customers (range of 10-20%), nine percent from industrial customers (range of 0-30%), and three percent from governmental customers (range of 0-10%). Residential demand is, not unexpectedly, clearly dominant. Commercial demand is also expected to play an important role, however, especially in the early years of restructuring when commercial-customer switching rates are expected to exceed those of residential customers.<sup>2</sup>

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<sup>2</sup> On April 22, 1998, for example, Toyota Motor Sales USA announced the purchase of approximately 4 MW of renewable energy from Edison Source, equivalent to the purchase of 100% renewable energy by 5,500 residential households.

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## 4. Who Are the Green Power Marketers?

Over 200 energy service providers have registered with the California Public Utilities Commission (CPUC) to participate in the California direct access market, though the majority of these suppliers are not yet actively selling power at retail. Few major suppliers appear to be strongly targeting the residential customer class, however, with only a handful using large, mass media campaigns to market their products to these customers.<sup>3</sup> Among residential suppliers, differentiation based on environmental attributes is already a key marketing tool. Therefore, when retail access began on March 31, 1998, a number of energy service providers began selling renewable energy products, and all of the major residential suppliers currently offer green power products.<sup>4</sup>

It is interesting to note the dearth of non-green residential electricity marketers and product offerings in California. Only a few suppliers are offering such services, and most of these offers are either not heavily advertised, are unlikely to be commercially viable, or include non-green value-added services (e.g., donations to churches and inner cities). Only Enron Energy Services (EES) has mass-marketed, on a statewide basis, a price-oriented residential product offering, and in April 1998 EES decided to suspend its efforts to market electricity to residential customers in part because of its inability to offer significant price savings. In part because of the “market rules” established in California, which have resulted in a low default utility service price and the uncompensated unbundling of billing and metering services,<sup>5</sup> and in part because of the high cost of marketing to residential customers (it can cost over \$200 to sign up an individual residential customer), marketers are generally unable to supply power to residential customers at a lower price than the incumbent utilities without incurring major losses. As a result, one of the only entrees into the residential market is to offer premium-priced, value-added products and services, the most prominent of which is green power. Though a strong disincentive to switch suppliers, the lack of price competition has therefore played an important role in creating and defining the market for green power products. If price competition was more viable in the residential market, one might expect that fewer suppliers would be interested in green power sales.

Table 2 lists nine green power marketers that have been or are currently active (as of early May 1998) in the California direct access market. Based on telephone interviews, the table classifies these market participants based on a number of different characteristics. Though they have not formally announced their plans or begun to solicit customers, other companies

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<sup>3</sup> Based on a survey of market participants, the Office of Ratepayer Advocates at the CPUC estimates that 22 energy service providers intend to serve residential customers during 1998, many of which are smaller companies that are not expected to launch major, costly advertising efforts.

<sup>4</sup> Of the 22 residential energy service providers identified by the CPUC, at least 11 (or 50%) plan to sell green power products in 1998.

<sup>5</sup> Specifically, though energy service providers can offer billing and metering to their customers, they are not currently reimbursed by the utility distribution companies for providing these services.

such as UtiliSys/Keystone Energy Services, The Green Power Connection, Eastern Pacific Energy, Renew Power LLC, PowerUSA, ITT PowerCom, Friendly Power Company, and Symmetry Device Research are also interested in selling green power in California, and at least some of these companies expect to be marketing green power by the summer of 1998.<sup>6, 7</sup>

**Table 2. The Green Power Marketers**

<b>Marketer</b>	<b>Primary Markets for Green Power (customers)</b>	<b>Affiliated with Electric Utility</b>	<b>Sells Only Green Products</b>
clean 'n green	residential	no	no
Enron Energy Services*	residential and commercial and wholesale customers	no	no
Edison Source	residential and commercial	yes	no
Green Mountain Energy Resources	residential and commercial	yes**	yes
PG&E Energy Services	residential and commercial	yes	no
Foresight Energy Company	wholesale customers	no	yes
PacifiCorp	wholesale customers	yes	no
Electric Clearinghouse	wholesale customers	no	no
Bonneville Power Administration/ Environmental Resources Trust	wholesale and large commercial and industrial customers	yes	no

\* On April 22, 1998 EES suspended its efforts to market green power to residential customers

\*\* GMER is partly owned but not controlled by an electric utility

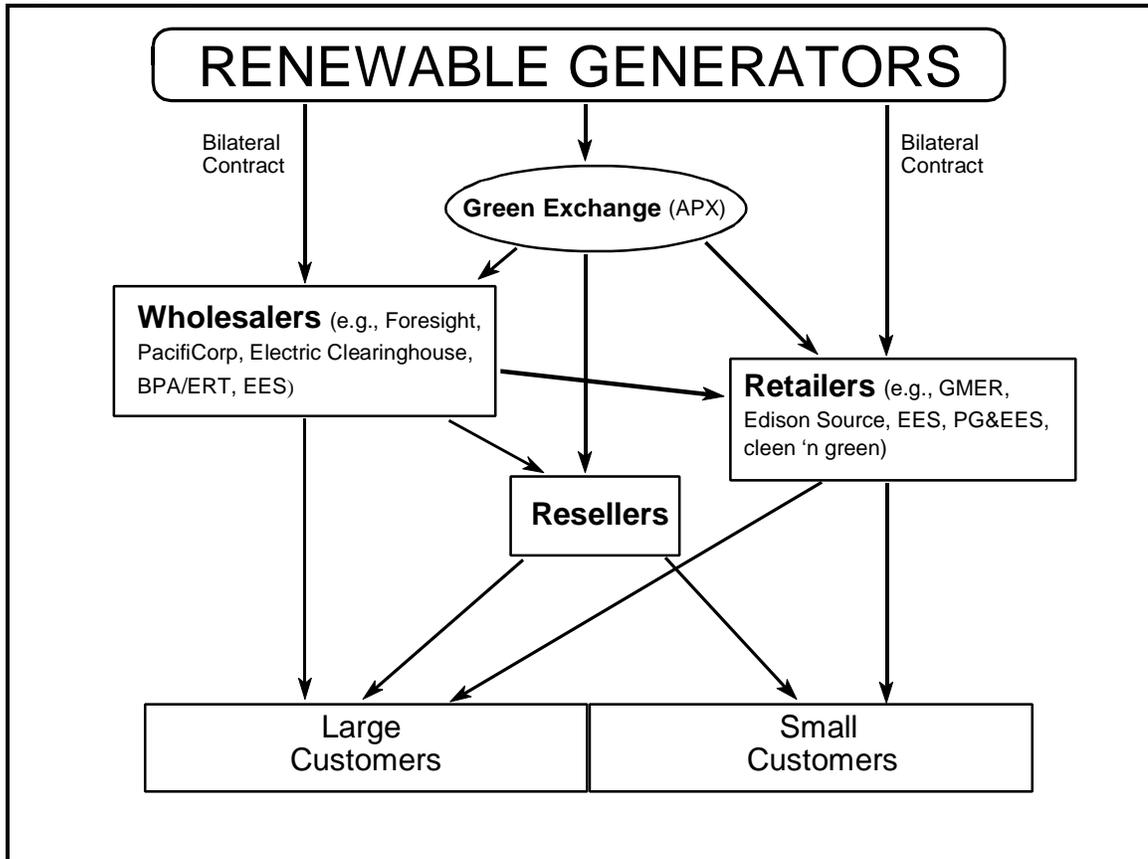
As noted in Table 2, five of the nine green power marketers are affiliated with an electric utility, and seven out of nine have a product line that includes green and non-green electricity products (the non-green products are frequently only sold to larger customers). Though some vertical integration exists in the green power market, many of the market participants use various forms of supply and distribution channels to reduce the number of activities that are performed in-house. Specifically, Figure 1 portrays, in a simplified manner, some of the

<sup>6</sup> UtiliSys/Keystone Energy Services, Friendly Power Company, and PowerUSA each plan to sell both 50% and 100% renewable energy-based products, and each of these companies is likely to begin marketing their products in May or June 1998.

<sup>7</sup> In addition, at least one possible green power retailer, Future Electric Networks, has claimed to be selling a hydro-based green power product via a multi-level marketing scheme; the product offer is questionable, however, and an injunction was filed against the company. Though a settlement was reached between the company and the Federal Trade Commission, it is not clear how the settlement will impact the product offerings of the company.

different types of contracting structures that have formed among the market players. Based on telephone interviews with the market participants, additional information is provided below on the various marketers.

**Figure 1. Simplified Structure of California's Green Power Market**



*Retailers:* Some marketers, such as Green Mountain Energy Resources, Edison Source, PG&E Energy Services (PG&EES), and clean 'n green, are emphasizing the retail market for green energy services and currently offer green power products to customers. Residential and commercial customers are the primary target customer classes for all of these providers. Enron Energy Service has also marketed a green power product to these customer classes, but on April 22, 1998, EES decided to withdraw from the residential marketplace, citing unexpectedly low levels of customer demand and cumbersome "market rules" that restrict competition. Of the remaining retail marketers, some, such as GMER, have not integrated the wholesale function into their business strategy, and instead contract with wholesale green power marketers for their power supply. Other suppliers, such as Edison Source, intend to primarily purchase power from specific generators via bilateral contracts and have therefore more fully integrated various business functions.

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*Wholesalers:* Foresight Energy Company, PacifiCorp, Electric Clearinghouse, and the Bonneville Power Administration (BPA) are primarily wholesale marketers and each offers green products (some of which are tailored specifically for the purchaser and others that are part of a specific product line) to retailers and resellers for sale to ultimate customers (the Environmental Resources Trust (ERT) acts as a broker for BPA's green products). Enron Energy Services has been both a retailer and a wholesaler for their green power products. As an example of a wholesale transaction, PacifiCorp and Electric Clearinghouse are the primary suppliers of GMER's green power products. Large industrial, commercial, and governmental customers are also sometimes targets for these wholesale marketers. BPA/ERT, for example, plans to offer a number of "fish-friendly" Northwest hydro products to large commercial and industrial customers. Foresight, on the other hand, works through other retail energy service providers to supply green power to commercial and industrial clients. Renewable generation for the wholesale products will be obtained via bilateral contracts, ownership, or the Automated Power Exchange (APX).

The APX is a private company that has developed a competitive wholesale exchange for in-state, QF-based renewable resources, and the APX may ultimately play an important role in the wholesale green power market. The APX Green Power Market™ will automatically match buyers and sellers of renewable energy through a time-varying spot-market price, which will reflect the existing market price of power plus a market determined renewable energy premium. Orders can be placed up to one week in advance of deliveries, and limit-price orders can be used to protect buyers and sellers from price risks (specifically, sellers can set a floor price and buyers a ceiling price for their orders).

*Resellers:* Some local governments, including the city of Palm Springs (which has a deal with Enron), are interested in aggregating their customers and offering them green power products.<sup>8</sup> These and other resellers will act as the distribution outlets or marketing intermediaries for some of the marketers listed above.

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<sup>8</sup> In the city of Palm Springs, Palm Springs Energy Services will offer customers Enron's "Earth Smart<sup>sm</sup> Power" product. Interestingly, the pricing structure for "Earth Smart<sup>sm</sup>" in Palm Springs is very different from the pricing of the "Earth Smart<sup>sm</sup>" product EES had marketed in the rest of California. Specifically, in Palm Springs residential customers will be charged 12.5¢/kWh plus a \$1 monthly fee for "Earth Smart<sup>sm</sup>" compared to the base residential rate of 10.6¢/kWh in that region. Commercial customers, on the other hand, will be charged 11.75¢/kWh plus a \$14.60 monthly fee, compared to the regular small commercial rate of 10.0¢/kWh in Palm Springs.

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## 5. What Are the Products?

### 5.1 Primary Retail Products

Table 3 provides a preliminary picture of the retail green power products being offered, as of May 1998, to residential and commercial customers in California (the table ignores products offered to larger commercial and industrial customers). The table includes EES's discontinued green power product. Though EES is no longer taking new residential customers, it will continue to serve those that signed up before May 1998. Appendix A provides a more detailed overview of these same products. As Table 3 shows, twelve separate products are supplied by the five green power companies targeting the residential and commercial customer classes (including EES). These products differ on many bases, including resource content, pricing level and structure, price stability, term of agreement, billing structure, and the provision of sign-up bonuses. In addition to the products shown in Table 3, a number of other marketers are expected to offer green electricity but have not yet launched these products or made their specific plans widely known. Moreover, at least one of the active green power marketers plans to offer additional green products shortly.

As discussed in greater detail in Section 8, it is important to recognize that the green power products offered in California have been influenced by a number of public policies (i.e., renewables subsidies, disclosure regulations, and "market rules") and nonprofit facilitation efforts (i.e., green power certification). Absent the renewables subsidies, for example, which can provide as much as a 3¢/kWh incentive to renewable sales from in-state, non-utility facilities, the price of some of the green power products would be higher and the market for green sales would be less profitable for marketers. Moreover, by helping define what resources are considered to be renewable and "green," the disclosure, certification, and renewable-subsidies programs are likely to have had an impact on the fuel mix of the green power products being offered.

Of the products listed in Table 3, all but GMER's "Water Power" and clean 'n green's "clean 100" contain significant quantities of those renewable resources defined by California state law. Specifically, there is one 20 percent renewable product, four 50 percent renewable products, two 75 percent renewable products, and three 100 percent renewable products. Most of the renewable electricity in these offerings will come from existing resources, largely resources purchased from in-state and out-of-state electric utilities. For an added price premium, however, GMER's "Wind for the Future<sup>sm</sup>" product promises to develop new renewable resources. In addition, all three of PG&E Energy Services' products include new renewable electricity. EES had announced that a 39-MW wind project would be built to supply a portion of the power for their "Earth Smart<sup>sm</sup> Power" product, but it appears as if these plans are on hold (it is not clear whether and to what extent current EES customers will receive new renewables). Finally, though they have not yet committed to supply a specific portion of their power from new renewables, Edison Source and clean 'n green both have plans to include some new renewables in the future.